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| 09/965,333      | 09/25/2001  | Yasuo Kida           | 04860.P2714         | 2899             |

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EXAMINER

SERROU, ABDELALI

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2654

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/965,333 | <b>Applicant(s)</b><br>KIDA ET AL. |  |
|                              | <b>Examiner</b><br>Abdelali Serrou   | <b>Art Unit</b><br>2654            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-117 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-117 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-30, 33-62, and 65-92 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to teach, wherein said creating third character strings corresponding to the plurality of sub-strings, the tool used for creating the third string.

Claims 2-30, 34-62, and 66-92 are rejected for the same reasons as they are dependent upon the aforementioned independent claims.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-62, and 65-96 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. These claims are omnibus type claim. The aforementioned claims (1, 31, 33, 65, and 95) end with a semi-colon (;) instead of a period (.), which rises the question of whether the claims end at that point or are missing some parts.

Claims 2-30, 32, 34-62, 66-94, and 96 are rejected for the same reasons as they are dependent upon the aforementioned independent claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 31, 32, 63, 64, 95, and 96 are rejected under 35 U.S.C. 102(e) as being anticipated by Tadano et al. (U.S. 6,542,090 filed on Oct. 3, 1999 and issued on Apr. 1, 2003).

6. As per claims 31, 63, and 95, Tadano et al. teach receiving a hiragana input (col. 1, lines 35-36);

automatically determining a plurality of possible katakana candidates based on the hiragana input (candidates are displayed as shown at C in FIG. 6, col. 7, lines 49-50);

analyzing the plurality of possible katakana candidate to convert the hiragana input to katakana characters (necessarily a step of converting from hiragana to katakana (col. 7, line 35);

selecting one of the katakana candidates in response to the analyzing (col. 7, lines 50-52);

outputting converted text comprising the one of the katakana candidates (col. 3, lines 31-35).

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8. As per claims 32, 64, and 96, Tadano et al. teach wherein the converted text further comprises kanji characters (col. 1, lines 35-39).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 97-117 are rejected under 35 U.S.C. 103(a) as being anticipated by Tadano et al. in view of Critchlow et al. (U.S 6, 401, 060 filed on Jun. 25, 1998, and issued on Jun. 4, 2002).

11. As per claims 97 and 104, Tadano et al. teach receiving the first character string having the source character string (col. 1, lines 35-36);  
and a regular dictionary coupled to convert the first character string to second character strings (col. 5, lines 34-35);

However, Tadano et al. do not teach a virtual dictionary coupled to generate third character strings based the first character string;  
a morphological analysis engine (MAE) coupled to the input method, the MAE performing morphological analysis on the first character string and converting the first character string to the target character string based on the second and third character strings;

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and an output unit coupled to the morphological analysis engine.

Critchlow et al., however, teach a virtual dictionary to generate character strings based on the first character string when the regular dictionary cannot generate them (col. 11, lines 22-25); a morphological analysis engine for performing morphological analysis (col. 7, line 54) on the first character string and converting the first character string to the target character string based on the second and third character strings (as suggested by the method of generating replacement strings (col. 15, lines 22-31 & Fig. 8, step 825), wherein a plurality of replacement strings are generated and one of those strings is prioritized upon others); and an output unit coupled to the morphological analysis engine (display, col. 15, line 26).

Tadano et al. and Critchlow et al. are analogous art because they are from the same art of generating character strings.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Critchlow et al.'s virtual dictionary with the regular dictionary of Tadano et al., in order to create a valid phrase analysis (col. 11, lines 24-25).

12. As per claims 98 and 115, Tadano et al. teach an application program interface (API) for receiving the first character string (col. 4, line 46) and an application program interface for transmitting the conversion to an application (col. 4, lines 54-55).

13. As per claim 99, Tadano et al. teach a keyboard for receiving the first character string (col. 8, line 65).

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14. As per claim 100, Tadano et al. teach a personal digital assistant (PDA) (character input apparatus, col. 2, line 27) for receiving the first character string.

15. As per claim 101, Tadano et al. teach wherein the first character string comprises Japanese hiragana characters (col. 4, line 25).

16. As per claim 102, Tadano et al. teach wherein the target character string comprises Japanese characters, wherein the Japanese characters comprise: hiragana characters (it is possible to reverse-convert handwritten kanji into hiragana, col. 8, lines 44-45); katakana characters (conversion from hiragana to katakana, col. 7, line 35); and kanji characters (kana-kanji conversion, col. 7, line 33).

17. As per claim 103, Tadano et al. teach dividing the first character string into a plurality of sub-strings (col. 7, lines 38-40) and converts the plurality of sub-strings to the second character strings (col. 7, lines 58-59) through the regular dictionary (col. 2, line 14).

18. As per claim 105, Tadano et al. do not teach providing part-of- information speech for a character strings by the virtual dictionary.

Critchlow et al., however, teach providing part-of- information speech for a character strings by the virtual dictionary such as determining whether a character is a noun or not (col. 11, lines 57-61).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have added Critchlow et al.'s feature of providing part-of- information to the system of Tadano et al., in order to provide a better analysis of the character string.

19. As per claim 106 Tadano et al. do not teach a priority value assigned by the virtual dictionary to each of the third character strings.

Critchlow et al., however, teach a priority value assigned by the virtual dictionary to each of the third character strings (col. 15, lines 25-31);

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Critchlow et al.'s feature of assigning priority values to character strings to the system of Tadano et al. in order to provide the user with the most probable character strings (col. 15, line 27).

20. As per claim 107, neither Tadano et al. nor Critchlow et al. teach wherein the priorities of character strings from the virtual dictionary are lower than the priorities of the character strings from the regular dictionary.

However, it is well known in the art to have virtual or secondary dictionaries with less priority than the regular or primary dictionaries.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to designate a lower priority to the virtual dictionary. Otherwise, the virtual dictionary would be as the same value as the regular dictionary.



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21. As per claim 108, even though, Tadano et al. do not teach multiple dictionaries comprised within the regular dictionary. Tadano et al. teach conversion to different character strings such as “kana-kanji conversion (col. 5, line 35), and “conversion from hiragana to katakana” (col. 7, line 35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have a plurality of dictionaries, within the regular dictionary, in order to convert from and to different character strings.

22. As per claim 109 Tadano et al. teach selecting candidates from the output of the regular dictionary (as shown in Fig. 6, step C).

However, Tadano et al. do not teach selecting the candidates from the output of the virtual dictionary if the regular dictionary does not contain the correct conversion.

Critchlow et al., however teach selecting the candidates from the output of the virtual dictionary if the regular dictionary does not contain the correct conversion (col. 15, lines 23-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Critchlow et al.’s virtual dictionary with the system of Tadano et al., in order to provide an improved method for generating strings in a documents containing Japanese text (col. 15, lines 33-35).

23. As per claims 110 and 111, neither Tadano et al. nor Critchlow et al. teach a dictionary management module (DMM) coupled to the MAE, the dictionary management managing the

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regular dictionary and the virtual dictionary; and wherein the MAE accesses the regular dictionary and virtual dictionary through the DMM.

However, The combined system, as in claim 109, provides selecting candidate strings from the output of the regular and the virtual dictionaries through the MAE.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention that for a system, such as the one described in claim 109, to have a dictionary management module coupled to the MAE, which in turn accesses the virtual and the regular dictionaries, in order to determine the valid steps to generate the closest candidate target strings to the source strings.

24. As per claim 112, Tadano et al. teach a user interface coupled to provide user interaction to the conversion generated from the MAE (display menu, Fig. 6).

25. As per claim 113, Tadano et al. teach selecting a final output through the user interface from a candidate list generated by the MAE (Fig. 6, step C).

26. As per claim 114 Tadano et al. teach transmitting the conversion to a display device (col. 2, lines 44-49).

27. As per claim 116, Tadano et al. teach a computer system having an apparatus (col. 2, line 27).

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28. As per claim 117, Tadano et al. do not teach a network computer and wherein the regular dictionary is stored in a network storage location.

Critchlow, however, teach a network computer and wherein the regular dictionary is stored in a network storage location (col. 4, lines 52-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have added Critchlow et al.'s networking system to the system of Tadano et al., in order to benefit the user from accessing program modules in both, local and remote memory storage devices (col. 4, lines 55-57).

### *Conclusion*

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Halstead, Jr. et al. (U.S 5,946,648 & U.S 5,963,893) teaches a system for word breaking to identify words within a Japanese text string. Miyahira et al. (U.S 6,876,963) teach automatic dictionary switching in a translation system.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on 571-272-7628. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

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31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdelali Serrou  
09/15/2005



**RICHEMOND DORVIL**  
**SUPERVISORY PATENT EXAMINER**